

## A G E N D A



## Recommendation for Council Action

Austin City Council	Item ID	61609	Agenda Number	25.
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Meeting Date:	9/1/2016	Department:	Watershed Protection
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## Subject

Authorize negotiation and execution of a 12-month interlocal agreement with THE UNIVERSITY OF TEXAS AT AUSTIN for DNA sequencing for salamanders in an amount not to exceed \$13,000, with two 12-month extension options in an amount not to exceed \$13,000 per transaction option, for a total amount not to exceed \$39,000.

## Amount and Source of Funding

Funding in the amount of \$13,000 is planned in the Fiscal Year 2017-2018 Operating Budget of the Watershed Protection Department.

## Fiscal Note

**Purchasing Language:**

**Prior Council Action:**

**For More Information:**

Chris Herrington, Watershed Protection Department, 512-974-2840; Tom Devitt, Watershed Protection Department, 512-974-6340; Donelle Robinson, Watershed Protection Department, 512-974-1242

**Council Committee, Boards and Commission Action:**

**MBE / WBE:**

**Related Items:**

## Additional Backup Information

The Federally Endangered Barton Springs Salamander (*Eurycea sosorum*) was previously thought to occur only in the Barton Springs Complex within Zilker Park. Recently, however, biologists have discovered several new salamander populations in Travis and Hays counties that are assignable to this same species based on genetic data.

Given this new information, biologists in the Watershed Protection Department will characterize genetic variation in wild populations of Barton Springs salamanders to evaluate extinction risk and guide recovery efforts for this species. These studies are consistent with the conservation measures of the City of Austin's Habitat Conservation Plan as approved by the U.S. Fish and Wildlife Service that allows for the continued operation and maintenance of Barton Springs Pool. This information will inform and improve City of Austin management of salamander populations and habitat.

Additionally, very little is known about the microbial ecology of the Barton Springs Complex, yet the microbial

community is an important contributing factor for multiple ecosystem services at these sites that could impact the Barton Springs salamander, including nutrient turnover and water quality at Barton Springs. Because of the lack of existing information, Watershed Protection Department biologists will implement a study to characterize the microbial community present at the spring sites where Barton Springs salamanders are found, and measure how this community varies over time. This work will characterize the natural variation in the microbiome of the Barton Springs salamander, provide information on the relationship of the salamander microbiome to the microbial community in groundwater, and determine if salamanders at the captive breeding facility reflect the natural variation seen at the spring sites. These studies will provide improved tools for understanding salamander health and will improve management methods for the captive population.

DNA sequence data collection will be undertaken by the Genomics Sequencing and Analysis Facility at the University of Texas at Austin. Contract laboratory services are required because of the specialized equipment required to collect and analyze DNA sequence data, and to meet advanced quality assurance objectives due to the sensitivity of these test methods.